EXHIBIT 34

SUPERIOR COURT OF NEW JERSEY
LAW DIVISION - MIDDLESEX COUNTY
DOCKET NO. MID-L-003809-18AS

KAYME A. CLARK and
DUSTIN W. CLARK,

Plaintiffs,

v.

JOHNSON & JOHNSON, et al.,

Defendants.

VIRTUAL
DEPOSITION UPON
ORAL EXAMINATION
OF
WILLIAM E. LONGO
Ph.D.
(VOLUME II)

TRANSCRIPT of the stenographic notes of ANDREA F. NOCKS, a Certified Court Reporter and Certified Realtime Court Reporter of the State of New Jersey, Certificate No. XI01573, taken virtually on April 2, 2024, commencing at 11:18 a.m., Eastern Standard Time.

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(Exhibits e-mailed to p1steno@veritext.com)

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chrysotile structures on the new analyses than they were on the old analyses?
A. Sometimes it's smaller, sometimes it's the same, sometimes it's greater. I haven't really sat down, but you would have to go back to the same samples so you can compare apples to apples.
Q. Have you --
A. Potentially you can see less. It just depends on how evenly distributed the chrysotile bundles had in the sample.
Q. Are there any Johnson & Johnson samples for which you've done these chrysotile by PLM analyses using both your old microscope versus the new Leica microscopes?
A. No.
Q. Okay. And I think the last time around we were talking, you were saying that the visual estimation of percentage of concentration of chrysotile from your view was typically more reliable than things like point -- point counting for the determination of the quantity of chrysotile by PLM.
Is that your view?
A. Yes.

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Q. Okay. And why is that?
A. Well, when point counting first came out -- well, when they said, you know, you can point count and do this, we were doing a lot of property damage cases in which we were analyzing fireproofings made by W.R. Grace and others. And those formulations are pretty consistent, 10 percent chrysotile.
When we would have analysts do point counting on it, just like they stayed, it was never -- it never matched up to the accuracy that we were getting with volume estimates because you go to a random point, and say there's nothing in that point, you know? Right next to it you can have one that you're not counting.
And actually, the 22262-1, I think it is, doesn't recommend point counting if you've got materials that have different heights of samples, different heights of minerals such as, you know, a platy talc with a bundle in it is going to be higher. So we just -- we have never done point counting. We did it initially. It takes too long and it's inaccurate, in my opinion.
Q. And this chrysotile structure per gram calculation that your laboratory performed, you

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wouldn't consider that a point counting method, would you?
A. Actually, point counting is, you have to do, randomly, look for things. For structures per gram, you actually scan areas, and you're not going to an area and you're just looking at it, one spot. You will look in that whole area over, you know -- you have to come to one point, move it, and if it's not right there, right under where you're looking, you don't count it. Could be just off to the side.
Q. Um-hum.
And when your lab performs the percent, I guess it's the percent area calculations for chrysotile in Johnson's Baby Powder samples that you've analyzed, your lab uses some standard reference area percentage charts as a reference point for estimating the chrysotile percentages in those products. Is that right?
A. No, that doesn't work for these products because fibers are so small. That really was designed for asbestos-added products.
Q. Okay.
A. What you can look at is the, you know, RG-144, where the number of structures you had

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were different percentages is more helpful. We just have to start -- you know, we have the standards made up. We're just in the process of redoing it with SG-210, so that -- 'cause I think that is a better indicator of the size of what we're seeing.
Q. Okay. So, how does your laboratory actually go about the process of calculating a percent of chrysotile by weight; for example, if I go to -- we can just go back to Exhibit 11A, that 71211 report, where you have these, you know, .001 to .002, .0009 to .001 percentages, what's the process that your analyst goes through to assign the specific down to, you know, a thousandth or a 10,000th of a percentage? What's the process they go through to perform that calculation?
A. Well, a lot of it has to do with experience and now they've been -- Paul Hess has been doing it, actually, on this particular thing, you know, five and a half years -- no, not that long. Yeah, almost five and a half years.
They will look at the size of the chrysotile structure and then they will look at the area of where it sits, and then they will make an estimate, estimate a visual -- it's a visual estimate of how much area that chrysotile is taking

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up.
So, if I were to go to the very first sample and I were to measure the size of the chrysotile and measure the size of the entire picture, and then divide it out to see what percentage it is, it probably would be pretty close to what we found there.
Q. Right. But could you walk me through what that process is? Like, are they doing an actual mathematical calculation, taking a measurement of a particle, taking a measurement of the field of view being analyzed, and then performing some sort of mathematical calculations to arrive at those figures?
A. No, it's not. It's called a visual estimate, not a visual calculation. And that is the standard method for PLM. That's how you do it.
Now, at these very low concentrations, 'cause you would never see anything like this in any asbestos-added products at this percentage, I think there's a difficult detection limit for a good microscopist was 0.1. So they make a visual estimate based on their experience.
Q. Okay. But how does somebody make a visual estimate and differentiate between the

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difference between, you know, 10,000th of a percentage, the difference between .0009 to .001 versus the difference between .001 to .002?
How is that analysis performed?
A. It's literally his opinion about the range that he's looking at on the slide.
If I were to do that, I would probably just round it off to the nearest, you know, number, but I don't tell him how to do it on their own. They have a lot more experience in looking at these than I do. So, it's just a visual estimate. It's their opinion.
Q. And it's a qualitative number, qualitative assessment, right?
A. A visual estimate -- it typically may have an error rate of .005 percent or something. They're all qualitative. Every time somebody does PLM and puts a weight percent down, it's called qualitative.
Q. Okay. That error rate that you just referenced, where did you pull that from? That's not from your --
A. It --
(Court Reporter clarification.)
BY MR. HYNES:

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Q. I was going to say, that error rate isn't specific to this chrysotile by PLM?
A. No. It's more specific. And, typically, NVLAP, they would send you a known sample, and you had a range of where it could be. You know, if it was 10 percent. And I forget what they allowed before they started knocking points off.
Q. So, that is based on NVLAP accreditation, PLM analysis process in which there are known percentages of commercially added chrysotile in a bulk sample that are then sent out to a variety of labs to see what --
A. Yes. It can be chrysotile, it can be amosite, what have you. And then they compare all the -- they compare all the labs, find the error rate, and then you have to be in their -- in the range of where the labs are hitting.
Q. And as any lab accreditation for chrysotile in medium via PLM, those are typically concentrations of chrysotile that range from, you know, 10 percent down to .1 percent; we're not looking at, you know, .001 percent chrysotile as part of those NVLAP accreditation processes, right?
A. I'm not sure they go down as low as

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.1. But, no, this is not the type of accreditation.
I've been told that they sent out one that was just Calidria, and 35 percent of the labs failed it. And I've been asked a lot, did we have that -- that pat round (phonetic), and, no, we could not find it.
They say that 22262-1 PLM, there's a paragraph in there by Chatfield about the problem with the Calidria, people missing it because of its size.
Q. When your analyst is doing this qualitative assessment of chrysotile percentages in Johnson's Baby Powder by PLM, they're not looking to any sort of area percent chart or reference images of a known concentration of chrysotile in talc at that given percentage as a reference point; this is simply an isolated review of that particular sample and assessing the overall percentage of chrysotile in that sample visually down to .001 percent or so.
Is that the process?
A. That's the process. You would never see anything like this or any of the -- you know, the round circle charts basically blocking out areas and say this is 10 percent, 20 percent, 30 percent. I mean, this is literally finding, you know, one or

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two. I mean, we're looking at, in this one -- let's see what it was. You know, 35 chrysotile structures in 30 field of view. So you are basically looking at one in each field of view, and they're very small. And there must be one or two in here that had two in field of views. You won't find anything like this.

I bet if we were to send out our knowns, our SG-210 knowns to labs and say, you know, Tell me how much chrysotile is in here, and not telling them what it is, they would -- I would say most of the -- most of the labs would miss it.

Q. Okay. I also had some questions about -- stay in the same report -- just a couple of questions about sizes of the structures and how that is determined by your PLM analyst.

If we just go to the first PLM photomicrograph in that report, M71211, Exhibit 11A, I'm down to page 25 of the report.

A. I've got it. Let me see. I've got it. 10.4 microns.

Q. Right. So I wanted to talk through sort of the process through which your lab determines the particle sizes of structures in PLM. And so, if I'm looking here at this image on page

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25, there's no scale bar on the image itself; there's just a, you know, a little line underneath the structure being analyzed, and it has the 10.4 microns listed there below it, right, for this particular image?

A. Correct.

Q. Okay. And so, walk me through the process through which your laboratory's PLM analyst determines the size of the structures being analyzed by PLM.

Do they start this process by, like, taking a photograph of Leica physical scale bar next to this slide?

Do they use, you know, a computer program to help them determine what the potential particle sizes are in the -- under the microscope at that given time? Is it something else? I guess just walk me through that process.

A. So the answer to your question is yes, this is when we -- this is with the Olympus microscope. And we had it all digitize- -- had the camera -- digital camera to a computer to a monitor, and then it was calibrated in the program on the different sizes, the microns.

So really, all the analyst has to do

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is go up and press the micron size, and he can click on one end of the fiber or bundle, no fibers, PLM. And to the other one, and it'll tell you its size. So it's been calibrated.

And this is before we switched over to the new system, which we now just put the micron bar at the bottom, and that's been calibrated, too. And that's about the best I can help you with there on that.

Q. Okay.

A. It's been calibrated and, you know, so it's at a hundred X. You could take and measure it now, and we'd have to account for the size of the photograph. You could go back and back-calculate to that, see if that's right for that magnification.

Q. Okay. And these photographs that you take in these Johnson & Johnson chrysotile in talc by PLM reports, are the photomicrographs always 10x objective lens to get a good look at them side by side?

A. Yes. The dispersion staining lens is always 10x. I have not gone in and started using the much higher magnification yet.

Q. Okay. And then the calibration process, how did that -- is that something that

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happened, you know, a long time ago and then you continued to use that calibrated, you know, camera and microscope setup for each analysis thereafter, or is it something that happens each time an analysis is performed? Walk me through that.

A. It happened a long time ago. So, I can't tell you on this one because this is the old microscope.

Q. Yeah.

A. But you could go through and -- and you can always tell the old microscope because the micron bar is always right next to the structure versus the new one where we just have it at the bottom.

Q. But I guess my question, so it's not something -- it's a calibration process, whether it's the old microscope or the new microscope, it's not something that happens, you know, with every analysis; it's something that happened at like a singular point in time to prepare the calibration, and then that calibration is used subsequently in each analysis thereafter?

A. The new is periodically checked, not to use the word twice, but I'd have to check on that. But you can go through and see that. If you

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compare one to the other, all taken at the same magnification on that, it matches up for the size and what we say it is.

Q. Okay. And that calibration process, did you -- does that involve sort of what I described before, somebody, like, taking a microscope 10x objective, and then having, like, a micron bar or scale bar that's photographed under the microscope at that size that then can be, I guess, incorporated into the software, whatever you use for the analysis, or is it some other process that you go through for that calibration step?

A. The calibration step is a number of ways. We do have micron -- known micron particles that we use to calibrate the SEM that could be done here too where you have 1 to 100 size. I think it's a polymer microsphere. Never had an issue with it, but I have to check on exactly what they're doing to make sure it doesn't change. I can't help you with this one anymore, that old one. I have to look what they're doing with the new one.

Q. Okay. So I guess sitting here today, you don't know what the calibration process was for the old microscope that was used for the 71211 --

A. Well, it's -- the software itself was

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calibrated to standards, so that, you know, when you said it was 10 microns, it's going to be 10 microns. How often it was recalibrated, I couldn't tell you.

Q. Okay.

A. The new one that's in the program that Leica supplies, it will calibrate. And I don't know how often they will look at slides that have microspheres on them to make sure you know we're getting the right size. I just have to check on that.

Q. Okay.

A. Nobody has asked that question before, so you're coming up with new stuff.

Q. And the -- so I guess sitting here today, do you know whether or not as part of the calibration of the old microscope or the new microscope, you actually have, like, a physical micron scale bar that was used as part of the calibration process, or you just don't know sitting here today?

A. Well, you don't have a micron bar. You do have in the -- in the -- in the ocular lenses at the top of it, you have a millimeter grid that you can use. That's how we -- we use that, you know, the size of the field of view. And if you do

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it right, you can get it down to what you're seeing here to validate that. I think that's what mostly the PLM guys do. But again, I'll have to check on it.

Q. Okay. And then that line that we see on the image on page 25 of the report, M71211, is that something that the analyst drew in, like, a software program and then it automatically generated the micron size, or was that something that they had to physically --

A. That you've got to put in yourself. You put the line in. When you click it on the other side, it will tell you -- if you were to just run that line over, you can see the micron bar getting higher and higher and higher. Once you click it on the other end, that's what it'll be showing there.

Q. Okay. And that's based on the -- sort of the software calibration that's been input into the system prior to the analysis, right?

A. Yes. It's -- it's taking it off -- what the computer is seeing the image. And that was put in when we changed that Olympus microscope over to the high-definition camera with the -- with the computer in the screen. It was a store-bought.

Now, with Leica, they just give you

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everything.

Q. Okay. All right. And then has your laboratory looked at the refractive indices of antigorite at 1.550 refractive index oil in both parallel and perpendicular orientation under central stop dispersion staining?

A. We have.

Q. Do you have laboratory standards for antigorite in those conditions?

A. We have it for antigorite, yes. So, we haven't paid much attention to it because everybody is saying we're misidentifying it as fibrous talc.

Q. Um-hum.

A. And so, but we have run antigorite.

Q. And do you have photomicrographs of that antigorite in PLM?

A. Yes, somewhere.

Q. Okay. I'll request --

A. You want those, too, right?

Q. I will request production of antigorite by PLM 1.550 refractive index oil, parallel and perpendicular orientation for the micrographs at your lab.

Same question on lizardite. Has your

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very front page will have something on there to help me dig this up.
Let me get down to the date, March 23rd. All right.
Q. I think it's all the Chinese-sourced containers that were in your August 2017 eBay report, if you recall that.
Okay. And so, we're just looking at the results, but you reported out results in both structures per gram and percent weight for chrysotile in this report, right?
A. Yes.
Q. And the formula for the -- for calculating the chrysotile structures per gram is the same formula that we were looking at in the M71211 report, same total area, same area in the 30 total fields of view that we were looking at the last round, right?
A. Yes.
Q. Okay. And if we flip to the, you know, the first PLM image, it looks like it's the same microscope that you guys were using in that last M71211 report, right?
A. Correct.
Q. All right. Then if we jump back in

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time to Zimmerman, this is the February 24, 2020, report on M70484. If we jump ahead to the method here, you're again using a 2.72 liquid density liquid for the separation here, right?
A. Correct.
Q. I think you're also doing the 500 RPM for 10 minutes room temperature, and then another round of 1800 RPM for 10 minutes at room temperature centrifugation, right?
A. Correct.
Q. And in these first wave of, you know, PLM analyses from 2020, your lab was just analyzing the light fraction by PLM, right?
Sorry. Did you answer?
A. No. I'm just trying to read it.
I believe so.
Q. So the light fraction was analyzed, right?
A. I believe so.
Q. And analyzed in 1.550 index oil?
A. Correct.
Q. And at this point in time your lab was not yet reporting results in terms of structures per gram, right? It was just limited to percent by weight, right?

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A. Correct.
Q. And then one thing your lab mentioned -- or you mentioned back in this report in February 2020, that you were still working on the heavy liquid density for chrysotile asbestos and by TEM.
And it's still true that your lab has not analyzed the Johnson & Johnson Baby Powder sample and reported results of chrysotile by TEM using that method to date, right?
A. Correct.
Q. Okay. Then we go to Colley, which I've marked. It's an April 6, 2020, report. M71046 is another --
A. I'm sorry. M71046?
Q. Right.
A. '46. What is that, 20- -- 2020?
Q. Yes, sir.
A. Okay. Thank you.
Q. You're welcome.
And I guess I should mention just briefly, if we go back to the Zimmerman report that was on a container, one of the containers in that report was dated from 1994, right?
A. Correct.

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Q. And --
A. M70484-001 and M70484-002.
Q. And if a container is from 1994 and it's the same talc that was originally in that container, it most likely would have been sourced from Vermont if it was a US market product, right?
A. 1994. Yes, that would be Vermont.
Q. Okay. Then, so we switch to Colley, Exhibit 13B, that sample dates to 1996. It would also be a Vermont source sample, right?
A. Yes.
Q. And if we go to the method here, there's a different density liquid used for this analysis than the other analyses we looked at before, right? This one has a 2.70 versus a 2.72 liquid density used here, right?
A. Yeah. I thought I caught all those. Those were typos. We've always used 2.72, as I recall.
Q. Okay. So this is a typo. It would have also been 2.72?
A. Yes. I think that's all we ever used. I think we tried 2.70, you know, before we figured out why the pellet.
Q. The centrifugation process is the

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I CERTIFY that the foregoing is a true and accurate transcript of the testimony and proceedings as reported stenographically by me at the time, place and on the date as hereinbefore set forth.

I DO FURTHER CERTIFY that I am neither a relative nor employee nor attorney or counsel of any of the parties to this action, and that I am neither a relative nor employee of such attorney or counsel, and that I am not financially interested in the action.

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